

WHAT IS CLAIMED IS:

1. An artificial bone comprising:

- a substrate material, wherein the substrate material comprises a plurality of closed cells; and

- at least one of a suppression component impregnated into at least one of the plurality of closed cells; and an x-ray component dispersed within the substrate material.

2. The artificial bone of claim 1 further comprising each of the suppression component and the x-ray component.

3. The artificial bone of claim 1 wherein the substrate material comprises a polyurethane material having a plurality of closed cells.

4. The artificial bone of claim 1 wherein the substrate material comprises one of the group consisting of: polyethylene, polypropylene and polymeric resins.

5. The artificial bone of claim 1 wherein the x-ray component comprises a plurality of barium components.

6. The artificial bone of claim 1 wherein the x-ray component comprises approximately 10% by weight of the substrate material.

7. The artificial bone of claim 1 wherein the suppression component comprises a propylene glycol material.

5 8. The artificial bone of claim 1 wherein the suppression component comprises one of the group consisting of: water, ethylene glycol, oils, polar and non-polar solvents, lotions and mixtures thereof.

9. A method of manufacturing an artificial bone comprising the steps of:

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- providing a substrate base material;
 - optionally mixing an x-ray component into the substrate base material;
 - curing the substrate base material into a substrate; and
 - optionally impregnating the substrate with a suppression component,

wherein at least one of the steps of mixing and impregnating are executed such that the
15 resulting artificial bone includes at least one of the x-ray component and the suppression component.

10. The method of claim 9 wherein the step of impregnating comprises the steps of:

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- placing the substrate within an autoclave;
 - introducing the suppression component; and
 - elevating the pressure within the autoclave for a predetermined period of time.

11. The method of claim 9 further comprising the step of placing the substrate base material into a mold prior to the step of curing.

12. The method of claim 9 further comprising the step of finishing the outer surface of the substrate after the step of curing.

13. The method of claim 9 wherein each of the steps of mixing and impregnating are executed such that the resulting artificial bone includes each of the x-ray component and the suppression component.